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The Market for Organic Canned Corn in Germany and the United States

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List of abbreviations

% m/m	percent by mass
ave	average
b	billion
CAGR	Compound Annual Growth Rate
C & F	Cost & Freight
CBI	Centrum Bevoordering Import (Netherlands)
CFR	Code of Federal Regulations
CIF	Cost insurance freight
cm	centimeter
COAs	Certificates of Analysis
EEA	European Economic Area
EPA	Economic Partnership Agreements
Est	Estimated
EU	European Union
€	Euro
FAO	Food and Agricultural Organization
FDA	Food and Drug Administration
FOB	Free on board
g	gram
GMO	Genetically modified organisms
GSP	General System of Preferences
HS	Harmonized Commodity Description and Coding System
k	thousand
kbA	kontrolliert biol. Anbau (German for controlled organic cultivation)
kg	kilogram
kg/ net eda	kilogram drained net weight
m	million
mm	millimeter
MFN	Most Favored Nation
MT	metric ton

SITC	Standard International Trade Classification
SPS	Sanitary and phyto-sanitary
T	ton
US	United States
USDA	United States Department of Agriculture
US\$	United States Dollar
WTO	World Trade Organization

Executive Summary

This Export Opportunity Survey covers the market for organic canned sweet corn in the United States and Germany. Sweet corn is a variety of corn with kernels that have high sugar content and is grown for human consumption. The quality of sweet corn is highly dependent on two variables: weather conditions and harvesting time. The weather condition allows the US to be one of the largest producing countries of sweet corn while Germany is a typical importing country. Both markets have a high consumption of sweet corn.

In both markets, health concerns, as well as the demand for both organic and convenience products, have increased. Therefore, the demand for organic canned corn is expected to increase in the next few years. Due to that, the number of special retailers is also expected to increase. In Germany, domestic organic wholesalers have a strong competitive position. The US faces strong pressure from exporting countries as most of the farmers produce regular rather than organic corn.

Trade barriers exist for both markets in the form of tariffs and trade regulations. The European Commission and the USDA require importers to register with an authorized control body and to provide a certificate of inspection.

The main producers of canned corn are the US, France, Hungary and Canada. The major wholesale shops are Dennree and METRO in Germany, and Sam's Club and Costco in the US. Regarding prices it can be concluded that at all three levels, producer, wholesale and retail prices have increased over the past few years continuously.

In both Germany and the US, the commercial practices vary based on the agreements made between private companies and their customers. A normal export order begins with ordering a quotation and ends with the transport of goods to the importer.

The packaging and labeling regulations are similar in both markets. However, Germany has higher recycling requirements. There are many advertising opportunities through trade fairs and magazines, which are growing fast and becoming more international.

Overall, the outlook is promising for organic canned corn in both Germany and the US. The German market is ultimately a more attractive market to enter due to its high dependency on canned corn imports.

1. Product description

This Export Opportunity Survey covers the market for organic canned corn in the United States and Germany. Canned corn is classified under the following codes:

- HS 200580 – Sweet corn, prepared or preserved, not frozen/vinegar
- SITC 05677 – Sweet corn prepared or preserved otherwise than by acetic acid, not frozen
- ISIC Rev.3.1. 0112 – vegetables, melons, sweet corn, onions, cabbages, carrots, lettuce, tomatoes, etc., grown in fields
- CAP 10.39.17; 2005 80 00 - Sweetcorn "Zea Mays var. Saccharata", prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen)
- NAICS 111219 - Other vegetable (except potato) and melon farming
- NACE 01.13.39 - Other fruit-bearing vegetables n.e.c.

Picture 1: Canned corn



Canned corn is a variety of corn with kernels that have a high sugar content and is grown for human consumption (The Oxford Pocket Dictionary of Current English, 2009). The corn plant survives only one growing season and can reach a height of two to three meters. Canned corn consists of the yellow kernels that are harvested early to preserve their sweetness and softness (Espinoza & Ross, n.d.). Sweet corn requires a subtropical or tropical climate with a soil temperature of at least 13°C (normal

varieties) to 18°C (supersweet varieties) (Espinoza & Ross, n.d.). The main growing areas include the corn belt (USA), Argentina, Brazil, India, China, and South Africa (Proplanta, 2015).

Note: for simplification purposes, this report refers to “sweet canned corn” as “canned corn”.

Sweet corn, known as *Zea mays* var. *rugosa*, is a genetic mutation of field corn and originates from Pennsylvania in the mid-1700s (Agricultural Marketing Resource Center, 2015). It is unclear when this mutation exactly occurred, but the first reference to sweet corn was by the Iroquois Indians in 1779 as “Papoon” (Nolte, n.d.).

Sweet Corn is divided into four general varieties. These include standard, sugary-enhanced, supersweet, and synergistic or triplesweet (Davis, 2005). Standard corn

grows better in soils with lower temperatures and is the least sweet variety. Furthermore, its sweetness fades quickly after harvest. (Purdue Agriculture, n.d.). Sugar-enhanced corn has higher sugar levels than the standard type and keeps this level for a longer time. Supersweet corn performs even better regarding these characteristics. The synergetic type is a hybrid of the sugary-enhanced (75%) and supersweet type (25%) (Davis, 2005).

The processing of Sweet Corn requires solving two issues. First, the perfect time for harvesting relies heavily on the moisture of the kernels. This causes the window for harvesting to be fairly small, because the taste quality declines rapidly after perfect maturity (Szymanek, 2012). Second, the risk for mechanical damage when cutting the corn kernels of the corncobs is fairly high. This is due to the kernels' irregular shapes and their low content of dry mass (Szymanek, 2012).

In the US, canned corn producers are allowed to use the label "certified organic" if they follow an ecological soil management program. The program has to be applied for at least 3 years and is governed by the USDA (Davis, 2005). The German corn industry underlies the rules and regulations of the EU, which requires at least 95% of the agricultural ingredients of a product, have to be organic (European Commission, 2015b).

Canned Corn contains the following nutritional values.

Picture 2: Nutrition Facts of canned corn

Nutrition Facts	
Serving Size 100 grams	
Amount Per Serving	
Calories 81	Calories from Fat 8
% Daily Value*	
Total Fat 1g	1%
Saturated Fat 0g	1%
Trans Fat	
Cholesterol 0mg	0%
Sodium 298mg	12%
Total Carbohydrate 19g	6%
Dietary Fiber 2g	8%
Sugars 3g	
Protein 3g	
Vitamin A 1%	Vitamin C 1%
Calcium 1%	Iron 4%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
NutritionData.com	

Compared to other cereal grains such as wheat or rice, canned corn is relatively low on carbohydrates. Furthermore, it is a source for dietary fiber, antioxidants, as well as Vitamins A and C.

2. Production, foreign trade & consumption

Production

The biggest worldwide producers of canned corn in 2013 were USA, Thailand, France, Hungary, and Canada. In 2013, the worldwide production was 1.2 m. T. Between 2000 and 2013, world production grew by 1.68% annually. (Food and Agriculture Organization of the United Nations, 2015).

Table 1: Top World Producers of Sweet Corn prep or preserved in thousands of tons						
Rank	Producer	2009	2010	2011	2012	2013
	World	1,129	1,171	1,189	1,169	1,174
1	USA	548	548	548	548	548
2	Thailand	162	173	184	172	167
3	France	138	138	153	153	153
4	Hungary	121	140	127	127	127
5	Canada	90	90	90	90	90
Source: Based on Food and Agriculture Organization of the United Nations (2015)						

The climate of Germany provides only limited opportunity to produce sweet corn. Therefore, Germany is one of the biggest importers of canned corn (Deutsches Maiskomitee e.V., 2012). The German corn production is used mainly as animal food (Deutsches Maiskomitee e.V., personal communication, October 30, 2015).

In the US over 25,000 farms harvest sweet corn in all 50 states. The states that are the largest producers of sweet corn are Minnesota, Washington, Wisconsin, Florida and New York. The average sweet corn yield per acre is between 4 and 6 T (Agriculture Marketing Resource Center, 2015). From 2009 to 2013 the sweet corn production of the US was unaltered (548,000 T/year) (Food and Agriculture Organization of the United Nations, 2015).

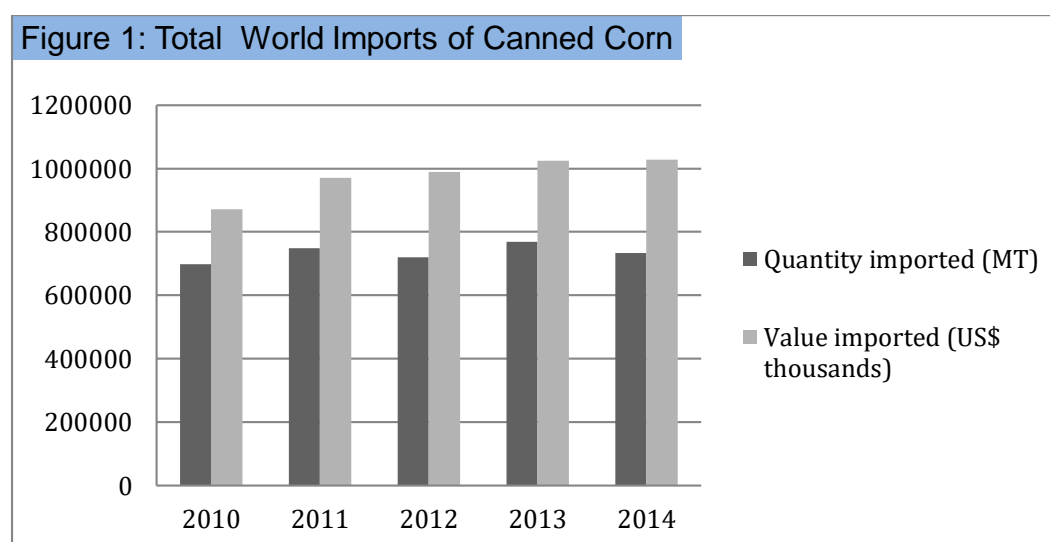
Note: International databases such as the UN Comtrade and FAOSTAT do not distinguish between organic and non-organic sweet corn preserved. As a result, the

following data relates specifically to sweet corn preserved with no distinction between organic and non-organic.

Foreign trade

World Imports

As shown in Figure , from 2010 to 2014, the quantity of imported canned corn has increased by 5% and the price during that period increased by 12%.



Source: based on Comtrade database, 2015

Top World Importers of Sweet Corn

Table 2 shows that Germany is the biggest importer of canned corn with almost 10% of global imports.

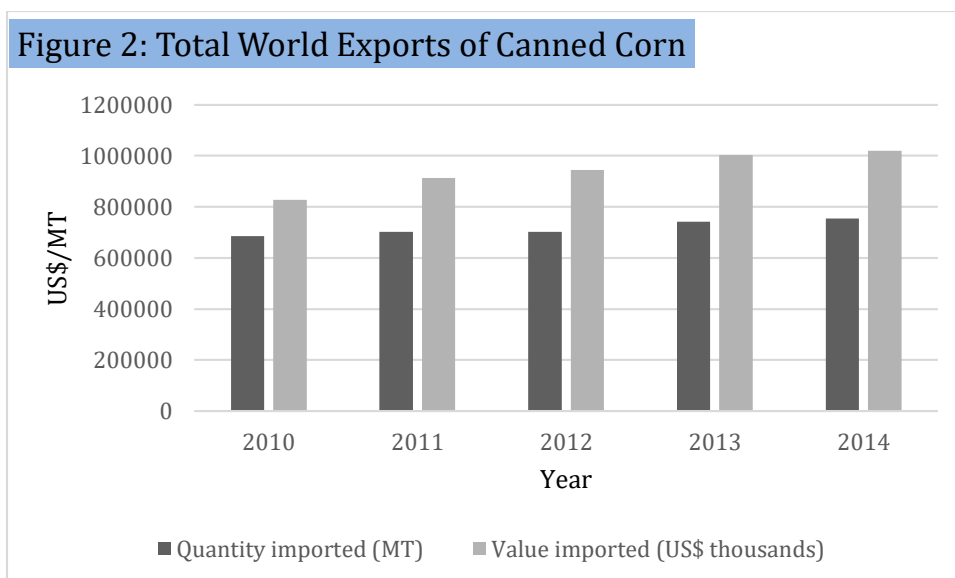
Table 2-Top World Importers of Canned corn in 2014							
Rank	Importer	Value imported (US\$ Mln)	Share of world importers (value in %)	Quantity imported (Tonne)	Unit Value (US\$/kg)	Import trend: Annual growth rates 2010-2014 (in %)	
						Value	Quantity
	World	1,026.50		732,285.0	1.4	18	5
1	Germany	102.3	10	71,443.7	1.43	22	9
2	United Kingdom	100.3	8	58,729.6	1.71	18	1
3	Japan	91.6	7.5	53,984.2	1.7	19	11
4	Spain	70.2	6	43,034.8	1.63	120	132

5	France	58	5.2	37,957.2	1.53	36	21
6	Belgium	54.5	4.5	33,075.6	1.65	17	-2
7	Russian Federation	39.8	6.5	47,463.5	0.84	-29	-26
8	Italy	36.9	3	20,580.8	1.79	12	26
9	Sweden	34.9	2.5	17,476.2	1.99	18	1
10	Rep. of Korea	33.7	4.5	32,683.0	1.03	-4	-7
11	Other Asia, nes	28.5	3.4	24,405.0	1.17	-6	-6
12	Norway	27.7	3	14,658.4	1.89	13	13
13	Poland	23.8	2	16,854.0	1.41	1	-14
14	Netherlands	17.1	2	12,532.5	1.36	56	87
15	Switzerland	16.6	2	8,373.9	1.98	12	-2
29	USA	7.5	1	8,406.4	0.89	-19	-24

Source: Comtrade database, 2015

World Exports

Figure 2 shows the total exports of canned corn from 2010 to 2014. The value of exported canned corn has increased by about 23% and the quantity has increased by around 10% from 2010 to 2014. From the figure it can be seen that the exports is growing continuously every year.



Source: based on Comtrade database, 2015

Table 3 shows the top exporters of corn and the annual growth from 2010 to 2014. The seven countries; Hungary, France, Thailand, USA, China, Belgium and Spain make up 90% of global exports.

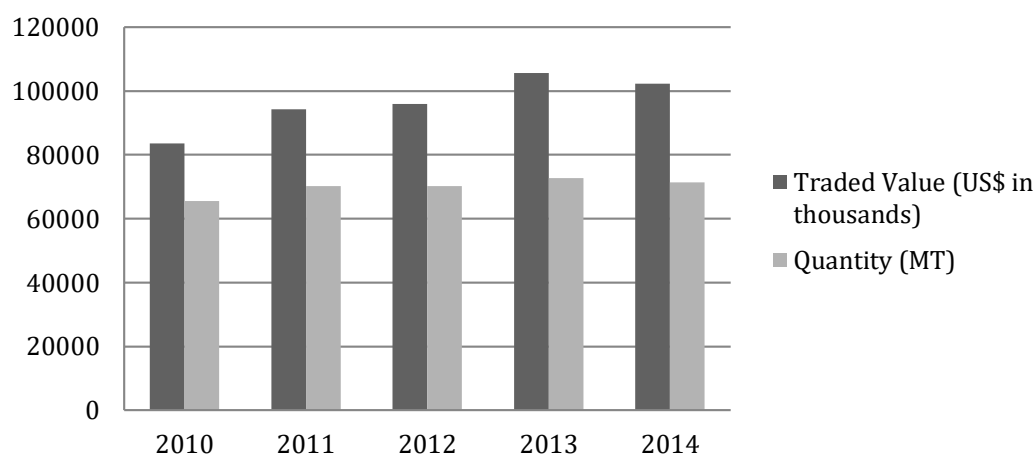
Table 3: Top world exporters of Canned corn							
Rank	Exporter	Value exported (Mln US\$)	Share of world exporters (value in %)	Quantity exported (MT)	Unit Value (US\$/kg)	Export trend: Annual growth rates 2010-2014 (in %)	
						Value	Quantity
	World	1,012		748,499	1.35	23	10
1	Hungary	229	23	176,329	1.3	30	25
2	France	210	21	115,011	1.83	8	2
3	Thailand	206	20	200,044	1.03	28	16
4	USA	118	12	94,688	1.25	-1	-20
5	China	59	6	44,862	1.31	62	22
6	Belgium	45	4	23,824	1.88	17	-3
7	Spain	45	4	25,550	1.75	1602	1843
8	Russian Fed.	13	1	8,849	1.52	262	187
9	Brazil	10	1	8,599	1.21	-3	-24
10	Poland	8	1	7,143	1.17	22	19
11	Germany	7	1	4,964	1.51	22	-3
12	Italy	7	1	4,571	1.62	-10	-16
13	Netherlands	7	1	4,970	1.48	6	58
14	Denmark	7	1	3,762	1.94	410	251
15	Canada	5	0.5	4,048	1.22	-37	-29
Source: Comtrade database, 2015							

German Imports and Exports

German Imports of Canned corn

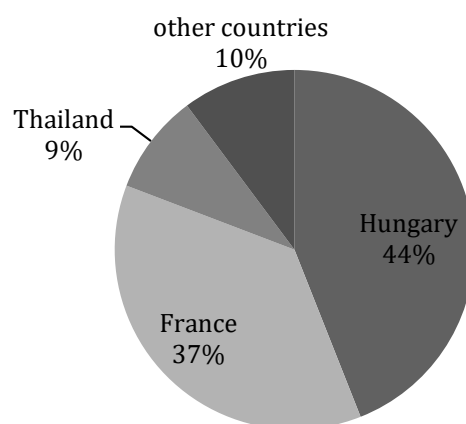
The main suppliers to the German canned corn market are France (37.6 m US\$), Hungary (\$45 m), Thailand (\$8.9 m) and the USA, which has negligible exports to Germany of \$67,690. The first three countries supply almost 90% of German imports (Figure 3 and 4).

Figure 3: German Imports of Canned corn



Source: based on Comtrade database, 2015

Figure 4: Origin of Imports in 2014 of Canned Corn



Source: based on Comtrade database, 2015

German Exports of Canned corn

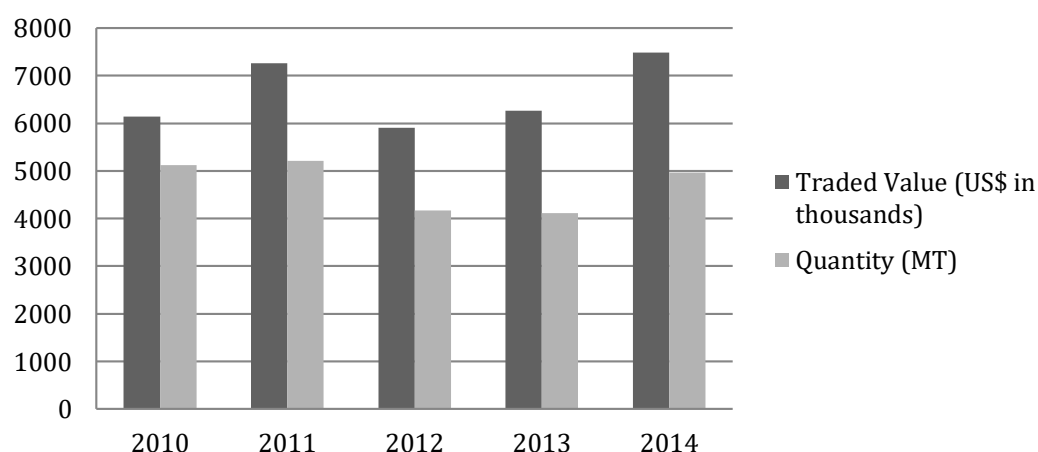
Table 4 and figure 5 illustrate the amount of German exports and the top 10 countries in which Germany exports corn to. In 2014, Germany has exported 4964 MT of corn, which has decreased by 3% in 2010. Importantly, German exports to Poland have increased by 316% from 2010-2014. However, in the same time span, their exports to Austria decreased by 44%.

Table 4: Top German Exports of Canned Corn in 2014

Rank	Countries	Value exported (MlnUS\$)	Share of world exporters (value in %)	Quantity exported (MT)	Unit Value (US\$/kg)	Export trend: Annual growth rates 2010-2014 (in %)	
						Value	Quantity
	World	7.5		4964	1.51	22	-3
1	Poland	2.4	31	1658	1.42	370	316
2	Austria	1.5	20	1026	1.43	-33	-44
3	Slovakia	0.8	10	472	1.56	137	72
4	Denmark	0.5	6	352	1.38	17	-4
5	Sweden	0.3	4	121	2.27	10233	6244
6	Romania	0.25	3	164	1.47	2	-9
7	Hungary	0.23	3	154	1.51	111	58
8	Croatia	0.18	2	117	1.57	3376	2566
9	Bulgaria	0.15	2	102	1.51	-43	-56
10	Norway	0.15	2	68	2.25	1832	2253

Source: Comtrade database, 2015

Figure 5: German Exports of Canned corn



Source: based on Comtrade database, 2015

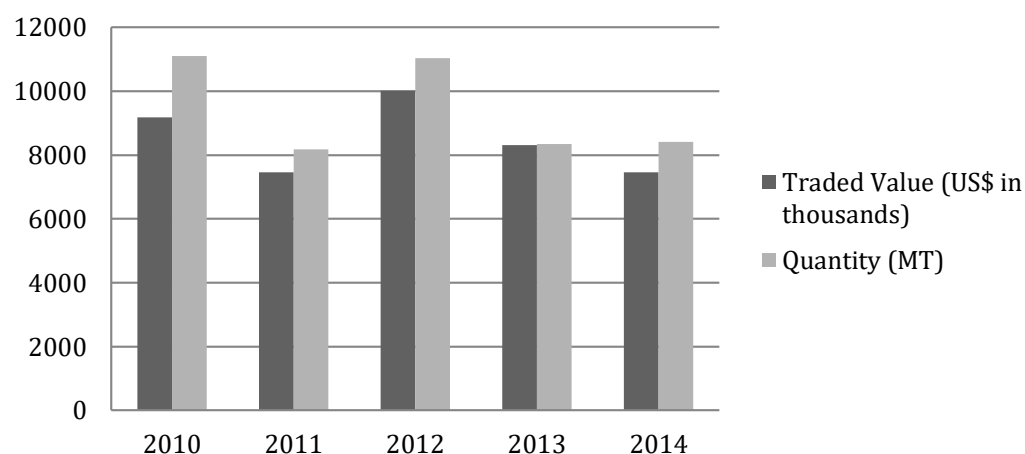
US Imports and Exports of canned corn

US imports of canned corn

Figure 6 shows that the US has lower imports than Germany due to their high production of canned corn (see table 1). Their canned corn imports have also

declined around 24% from 2010-2014.

Figure 6: US Imports of Canned corn

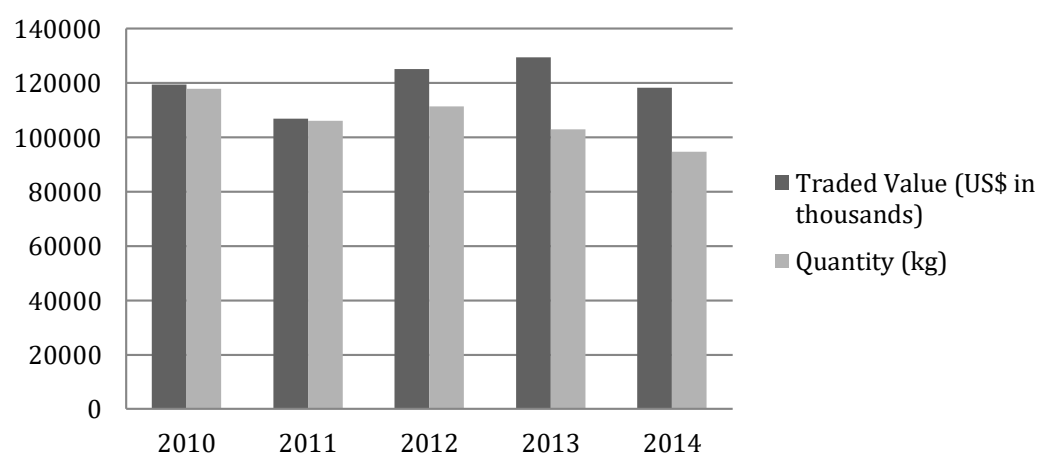


Source: based on Comtrade database, 2015

US exports of Canned Corn

US is the world's fourth largest canned corn exporter. In 2014, US exported \$118.3 m of canned corn (Figure 7, Table 5), but from 2010 to 2014 the quantity of exported corn has declined by 20%. Interestingly, in this same period the growth value has decreased by 1%, which means that in this period the prices of canned corn have increased. US mainly exports to Japan (29%), Rep. of Korea (10%), Norway (9%) and other Asian countries (10%). These countries account for 58% of US exports of canned corn.

Figure 7: US Exports of Canned corn



Source: based on Comtrade database, 2015

Table 5: Top US export destinations of Canned Corn in 2014

Rank	Exporter	Value exported (MlnUS\$)	Share of world exporters (value in %)	Quantity exported (MT)	Unit Value (US\$/kg)	Export trend: Annual growth rates 2010-2014 (in %)	
						Value	Quantity
	World	118.3		94,688	1.25	-1	-20
1	Japan	34.3	29	27,063	1.27	5	-18
2	Rep. of Korea	12.4	10	8268	1.5	-36	-53
3	Other Asia, nes	12	10	8675	1.39	-18	-37
4	Norway	10.1	9	8287	1.22	71	55
5	Mexico	10.1	8	9408	1.07	-11	-26
6	Canada	8.8	7	7683	1.15	24	8
7	Saudi Arabia	5.4	5	4140	1.31	123	83
8	Sweden	4.3	4	3594	1.19	42	32
9	Colombia	4,2	4	3529	1.19	485	402
10	Switzerland	2.2	2	1697	1.28	234	173

Source: Comtrade database, 2015

Comparison of US and German imports and exports

Figure 8: Comparison of US and German Exports and Imports (MT)

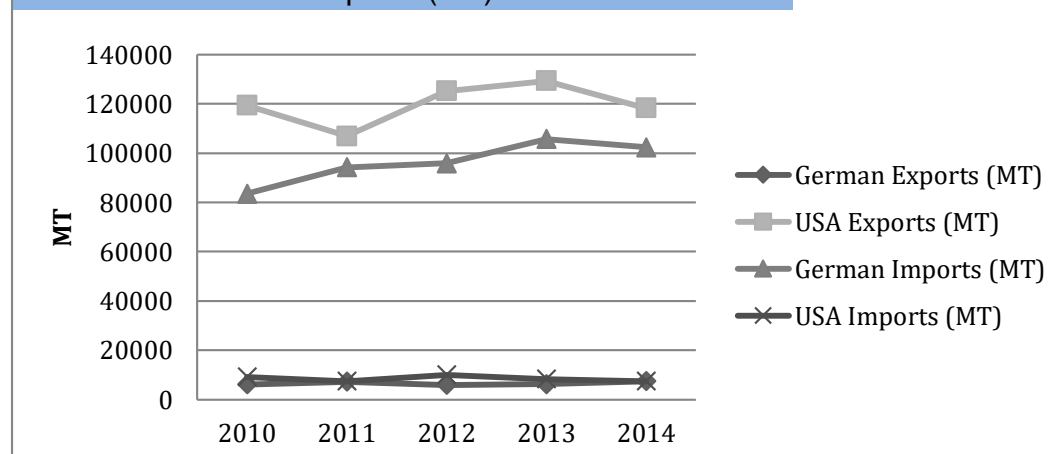


Figure 8 shows that Germany is a corn importing country, while the US is a corn exporter.

Apparent consumption

The world consumption of canned corn has increased from 1.13MT to 1.14MT since 2009. Table 6 shows that the US has been the world leader between 2009 and 2013, by consuming 453,352 T of sweet corn. For consumption statistics, Canada was second and Germany was third in 2013. Other major consumers of canned corn are France (86,458 T) and China (873 T).

Table 6: Top World Consumption of Canned corn in MT						
Rank		2009	2010	2011	2012	2013
	World	1,130,242	1,183,164	1,224,695	1,176,043	1,144,805
1	USA	444,655	441,213	450,030	447,619	453,353
2	Canada	89,706	91,292	91,570	94,462	93,151
3	Germany	54,060	60,348	65,021	66,002	68,534
4	France	68,083	53,374	49,963	51,347	86,458
5	China	874	826	611	491	873
Source: Based on Comtrade database, 2015						

Table 7 shows that Germany's consumption of canned corn was peaking in 2013 at 68,534 T when imports increased while exports decreased. In 2011, the exports increased a little, but after that they decreased steadily until 2013. The German consumption increases sharply from 2009 to 2013. Consumption per capita increased from 0.66 kg in 2009 to 0.84 kg in 2013; a gradual increase over that time period (converted to kg by the authors). The US consumption per capita was constant around 1.43 kg from 2009 to 2013. It shows that both, the US and Germany, have high canned corn consumption while the US is a main corn exporter and Germany a corn importer. Canned corn consumption has increased slightly in the past years and is in high demand.

Table 7: Comparison of German and US consumption						
Value in kg						
		2009	2010	2011	2012	2013
Germany	Per Capita Consumption	0.66	0.74	0.79	0.82	0.84
Value in kg						
		2009	2010	2011	2012	2013
USA	Per Capita Consumption	1.43	1.42	1.44	1.42	1.43
Source: Based on Comtrade database, 2015/ http://data.worldbank.org/indicator/SP.POP.TOTL						

3. Market characteristics

Germany

Consumer Preferences

The consumption of canned corn in Germany has increased from 54,060 MT in 2009 to 68,534 MT in 2013, making Germany the biggest canned corn consumer in Europe.

According to industry sources, German consumers prefer organic sweet corn in either canned or jar form, which have an average size of 300 g; considered to be a suitable portion for one meal. Canned corn is used in salads and as vegetable side dishes.

The organic food segment in Germany has experienced an increase of around 250% in sales over the last decade. Consumer attitudes have recently been influenced by the increased awareness of health. Two-thirds of Germans see a direct connection between nutrition and health and are therefore shifting towards organic food products to avoid health issues. Also, there is currently a high demand of convenient food products such as canned or preserved vegetables in Germany due to the faster pace of life and the increase in the number of single households (Lindel, 2014). The increasing number of vegetarians and vegans in Germany has also lead to a shift towards organic canned corn in recent years.

Market Segments

In Germany, canned corn has universal appeal. Consumption is unaffected by gender, ethnic background, religion, nor household size. The organic version appeals to highly educated Germans with above average wages who live in urban or suburban areas. Besides the final consumer, the German market for organic canned corn is segmented among the retailers. These are either organic food stores or supermarkets that sell both organic and non-organic canned corn. Other segments can also be found in the catering sector, such as restaurants or food producers. However, those segments tend to purchase regular canned corn due to the difference in price, unless they promote their food being organic.

Conditions of Acceptance

German consumers seek quality attributes based on the visual inspection, which refers to the color and shape of the kernels. Consumers prefer jars over cans as they can assess the actual physical appearance. Another main quality attribute is the control station labeled on the product as “kbA”. The kbA “EU-Bio” states that the

conditions of organic cultivation meet the EU requirements (Alnatura, 2015).

Competition

In Germany, organic food stores have a relatively strong competitive position since the customers who buy organic corn prefer to buy it at organic sources rather than in supermarkets. One of the biggest German wholesalers of organic food is Dennree GmbH, which also owns its own organic retail stores in Germany and Austria (Dennree GmbH, 2015). In terms of substitute products to organic canned corn, customers prefer organic fresh corn as no acid preservation is added, even though organic. In addition, corn is one of the most typical canned vegetables, together with beans and peas. Many customers therefore demand a mixture of those vegetables in one can (Rundschau, 2009).

Demand Trends

As shown in table 6 (see Chapter 2), the consumption of canned corn has continuously increased since 2009. The demand trend for the next three to five years is therefore promising, especially for organic canned corn. This is due to the fact that this year, Germany has put forward a move to ban the cultivation of GMO crops under new EU rules (Gray, 2015).

The United States

Consumer Preferences

The consumption of canned corn in the US is less than that of fresh or frozen corn. As health awareness increases, US consumers have changed their preferences and eating habits. There is now a growing consumer demand for organic products. At the same time, there is a rise in the demand for convenience. Therefore, products that combine health and convenience become highly demanded. This increases the demand of organic canned corn.

Furthermore, a growing trend in the US in recent years has been to avoid GMO sweet corn. Therefore, consumers are shifting towards organic corn (Schweizer, 2015).

Market Segments

In the US, the consumers of canned corn are higher-income households and highly educated individuals, ages 18 and older. They perceive organic canned corn to be better for their health. In addition, their lifestyles and hobbies align with opting for the more natural and healthy options. Older people living in the southern part of the

country consume the most canned corn and among ethnic groups, the top consumers are Caucasians (Buzby, Wells, Kumcu, Lin, Lucier, & Perez, 2010).

Conditions of Acceptance

According to the Codex Standard for Maize, which applies for human consumption, the quality of corn can be determined by visual examination of the buyer regarding the shape, color and defects, such as broken kernels (Codex Alimentarius, 1985). Moreover, the moisture content is a main quality factor and is not allowed to exceed 15.5% m/m as high-moisture corn is soft and easily damaged (Lazor & Coleman, 2013). Due to the importance of dry crop conditions and harvest moisture, exporting countries meeting these conditions are preferred.

Competition

The US demand is surging for organic food, but American farmers are still growing almost exclusively GMO feed crops. This is due to the US rule, which requires American farms to be free of GMO crops and synthetic chemicals for three years before it can be certified organic. Thus, farmers would give up profit before gaining any price benefit (Best, 2015). The US is therefore increasingly turning to exporting countries where farming is less industrial, such as Romania and Turkey. As a result, those large exporters have a very strong competitive position as opposed to American farmers.

Within the US market, one of the market leaders is Hy View Feeds, a producer located in Minnesota. It has seen its sales quadruple since winning the organic certification a decade ago and thus, is making up for domestic shortages (Bjerga, 2015).

Direct substitutes to canned corn are fresh or frozen corn since customers oftentimes prefer them to canned corn. Other substitutes are also canned vegetables, e.g. canned peas or beans (Buzby, Wells, Kumcu, Lin, Lucier, & Perez, 2010).

Demand Trends

Concerns about GMO corn have increased the demand for non-GMO and organic corn in the U.S. market. However, domestic farmers are averse to switching the production to organic corn due to the three-year transition period even though yields are higher than with regular corn (Bjerga, 2015). The increase in demand for imported organic corn might therefore be higher than the increase in demand for domestic organic corn.

Comparing both markets, they are quite similar in terms of consumer preferences. The demand for organic corn is expected to grow in both the US and Germany as

health concerns increase. However in terms of competition, the US market for organic canned corn is facing a stronger external competition due to the three-year transition period. As a future outlook, the US is therefore more likely to face a higher increase in imported canned corn than the German market.

In addition, value-added and premium local marketing will be keys to maintaining future sweet corn profitability. The organic sweet corn will especially have more demand when having added value.

4. Market access

Tariffs

The EU imposes a *compound duty* of 5.10% and 9.40€ per 100 kg/net eda, i.e. per 100 kg drained net weight, for countries with MFN status, as well as on imports from Liechtenstein and Haiti. For other EPA and individual countries, an *ad-valorem duty* with a 0.00 rate applied, likewise for Least Developed Countries (LDC), EU-Eastern and Southern Africa States, and countries that are subject to the Overseas Countries & Territories Agreement.

A *specific duty* of 9.40€/100 kg is imposed on countries that, among others, are subject to the Central American Agreement and the Generalized System of Preferences (GSP+), whereas to EPA members, the specific duty is 7.58€/100 kg, except for Liechtenstein. Selected Tariffs are shown in table 8. See Annex 1 for all tariffs.

Table 8: Selected European Union Tariffs for HS 200580				
Duty type	Description	Rate	Specific Duty	Binding: Bound Nature
2	MFN applied duty rates	-	5.1 % + 9.4 EUR/100 kg/net eda	Compound duty
20	European Economic Area Agreement	-	7.58 EUR/100 kg/net eda	Specific duty
20	European Economic Area Agreement Liechtenstein	-	5.1 % + 9.4 EUR/100 kg/net eda	Compound duty
22	EU-Switzerland agreement: re-imported goods	0.00	-	Ad valorem duty
23	Overseas Countries & Territories Agreement	0.00	-	Ad valorem duty
25	EU-Eastern and Southern Africa States agreement	0.00	-	Ad valorem duty
26	Economic Partnership Agreements	0.00	-	Ad valorem duty
27	Economic Partnership Agreements CARIFORUM	0.00	-	Ad valorem duty
27	Economic Partnership Agreements CARIFORUM Haiti	-	5.1 % + 9.4 EUR/100 kg/net eda	Compound duty
28	Central America Agreement	-	9.4 EUR/100 kg/net eda	Specific duty
42	Generalized System of Preferences (GSP+) plus scheme	-	9.4 EUR/100 kg/net eda	Specific duty
50	Least Developed Countries (LDC) duties	0.00	-	Ad valorem duty
Source: WTO – Tariff Analysis Online				

The US currently places a 5.60% tariff ad valorem duty rate for countries with an MFN status. The US also places a 1.10% free-trade agreement duty rate for Korea. The general duty is 35.00%. This information can be found in Table 9 (WTO, 2015). Annex 2 provides more detailed information.

Table 9: Selected US Tariffs for HS 200580				
Duty type	Description	Rate	Specific Duty	Binding: Bound Nature
2	MFN applied duty rates	5.60 %	-	Ad valorem duty
10, 11	Free-trade area duty rates for Canada and Mexico under the NAFTA	0.00	-	Ad valorem duty
11	Free-trade area duty rates for Mexico under the NAFTA	0.00	-	Ad valorem duty
1A	Free Trade Area duty rate for Dominican Rep. and Central America (DR-CAFTA)	0.00	-	Ad valorem duty
1D	Free-trade agreement duty rate for Korea	1.10 %	-	Ad valorem duty
1F	Free-trade agreement duty rate for Panama	0.00	-	Ad valorem duty
30	Preferential duty rate for the Caribbean Basin Economic Recovery Act (CBERA)	0.00	-	Ad valorem duty
40	Generalized System of Preferences (GSP) scheme	0.00	-	Ad valorem duty
80	General duty	35.00 %	-	Ad valorem duty
Source: WTO - Tariff Analysis Online				

Standards and regulations

In order to be labeled organic, a USDA-accredited certifying agent must inspect the product and make sure it follows all standards of the USDA. In addition, no synthetic fertilizers, sewage sludge, irradiation, and genetic engineering can be used in the organic process. All organic products must comply with all the organic requirements in the USDA organic regulations (USDA, 2015b).

EU regulations for canned corn are, among others, subject to ICS 67.080: Fruits. Vegetables *Including canned, dried and quick-frozen fruits and vegetables* and ISO 22000: Food safety management systems -- *Requirements for any organization in the food chain* (ISO, 2015).

Concerning organic imports from EU and non-EU countries, the regulations can be found in the *Commission Regulation (EC) No. 1235/2008* with detailed rules concerning import of organic products from third countries (European Commission, 2014a). In general, an importer of organic products must register with a control body or control authority and all consignments from non-EU countries need to be

accompanied by a certificate of inspection. The certificate of inspection can be issued by a control body accepted by the EU or the control authority/ control body authorized by a country that is recognized by the EU (European Commission, 2015a). Moreover, an exporter needs to ensure that the traded food is safe and meets the sanitary and phytosanitary (SPS) measures of the EU, which have been increased considerably in recent years as trade barriers for imports (European Commission, 2015b).

The Codex Standard for Certain Canned Vegetables - Codex Stan 297-2009 is the worldwide standard for canned corn and provides further information on essential composition and quality factors but also sanitary regulations for both, Germany and the US (Codex Alimentarius, 2015).

Non-tariff barriers

Non-tariff barriers are restrictions to trade that include quotas, levies, embargoes, sanctions, and other restrictions set by the country. There are currently no evident non-tariff barriers in the US and the EU for organic canned corn.

An exporter should carefully analyze the market requirements for canned corn regarding the origin and also make sure that the sanitary and technical import requirements are met. Comparing the market access to the German (or European) and the US market, the entry barriers for individual countries are lower in the US, which makes the market more attractive to exporters, in terms of customs duties. As a potential outlook, exports to the US might increase by a larger amount in relation to the German market. Moreover, US farmers are hesitating to come up with the three-year transition period from GMO to non-GMO. Thus, large importers are most likely to obtain a great market power.

5. Prices

Prices at Producer Level

The producer price of canned corn is highly dependent on the countries that are the main producers of the product. As one of the main producers of canned corn, the US has a significant impact on its world market price. Hungary, France, Thailand and Canada also play a role. (NOTE: Prices at producer level are referring to fresh regular sweet corn, since the sources do not distinguish between organic and regular, or fresh and canned corn).

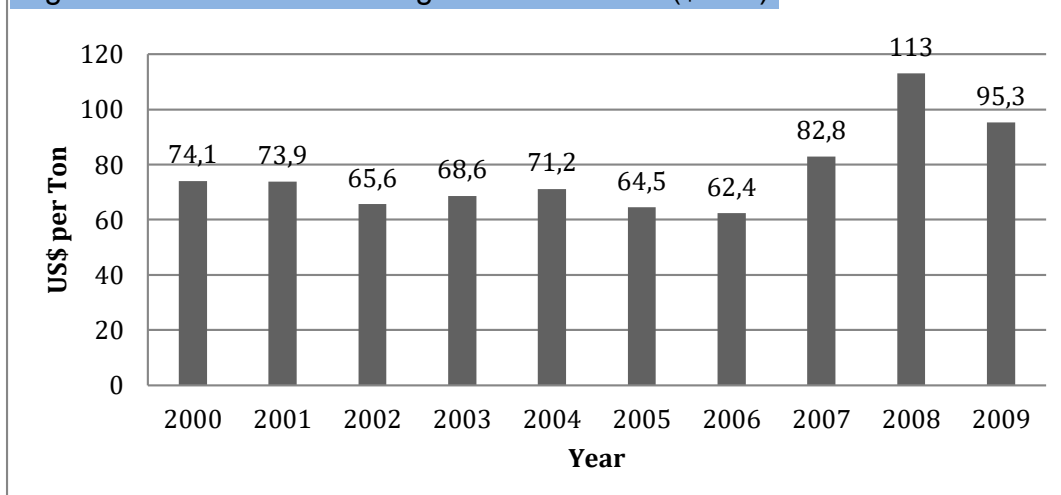
Figure 9 shows the world market price for regular sweet corn from 2012 to 2015. It can be seen that the world market price of regular sweet corn has decreased by about 43% from 2012 to 2015. (For detailed information of the world market price see Annex No. 3).



Source: IMF, Market Prices for Non-Fuel and Fuel Commodities 2012-2015

Figure 10 shows the US farmer prices of canned corn from 2000 to 2009. During these periods, the farmer price has increased by about 29%. The price peak was in 2008 with \$113/T.

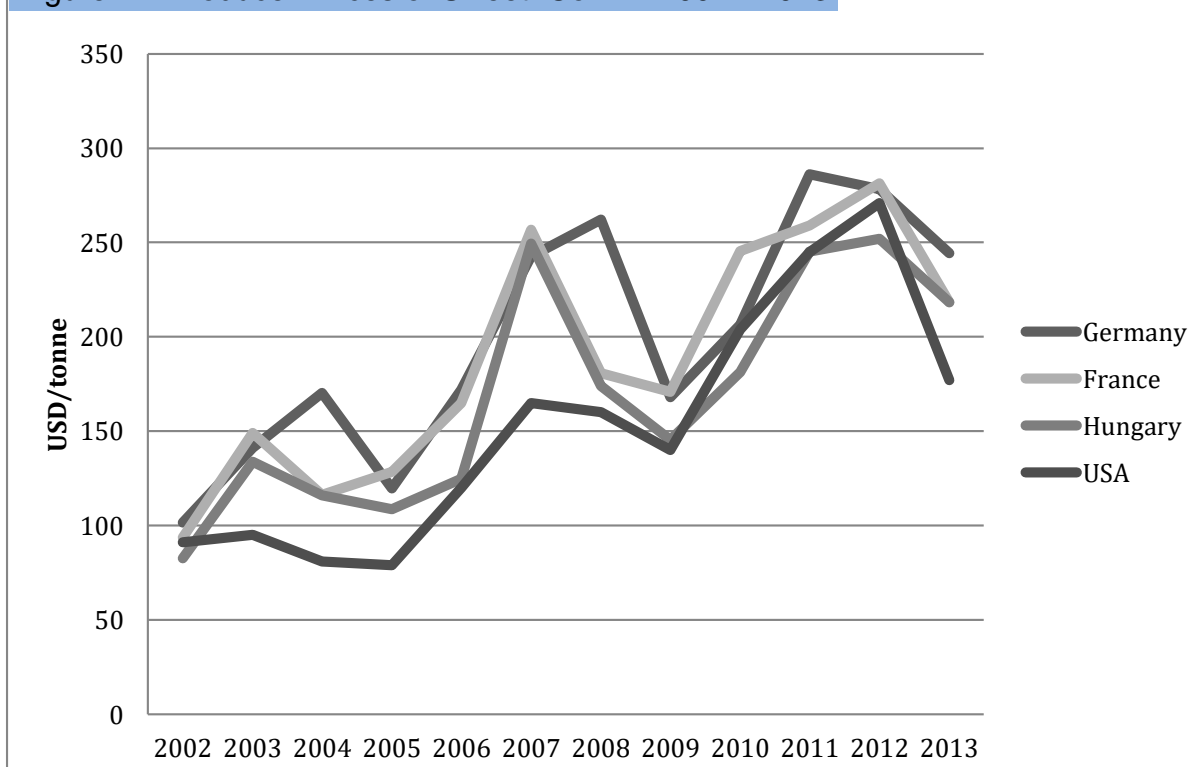
Figure 10: US Farmer Pricing of Canned corn (\$/Ton)



Source: USDA, 2010

Figure 11 shows the development of producer prices of regular sweet corn in Germany, France, Hungary, and the US. The average production price of these countries was \$92.2/T in 2002 and until 2012 it has steadily increased to \$271/T. This is an increase of more than 193% within this ten-year period. In 2013, the average price however decreased by 21% to the level of \$214/T. (For detailed information of producer prices of these four countries see Annex 4).

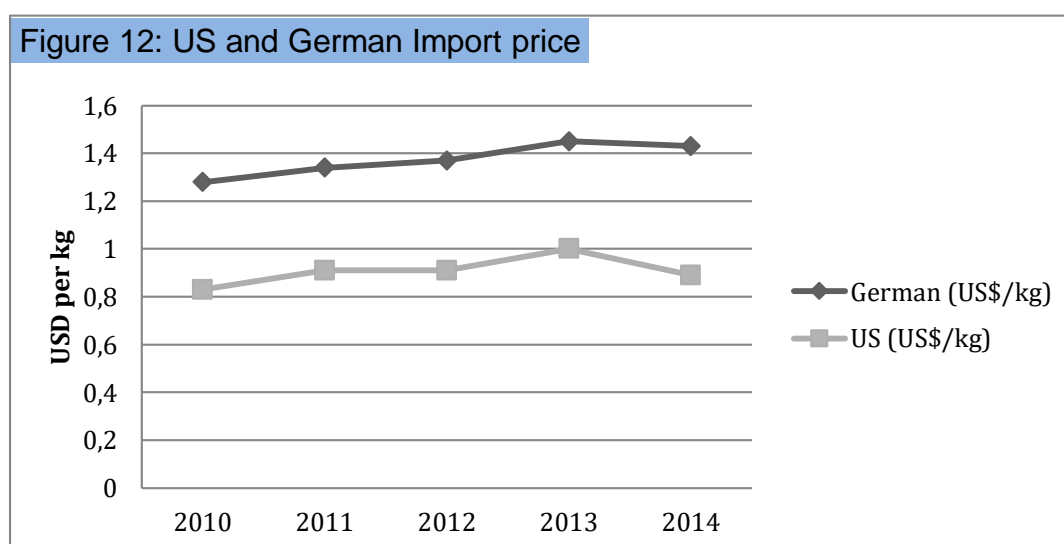
Figure 11: Producer Prices of Sweet Corn in 2002 - 2013



Source: FAO data analysis, 2015

The US organic corn production between 2001 and 2010 nearly increased three times due to high returns (USDA Economic Research Service, 2014). For the US production of non-organic canned corn, prices have continued to increase since the year 2000. In 2000, the season average price was \$74.10/T. In 2009, the price rose to \$95.30/T (USDA, 2010). In the US, organic canned corn can create prices for about 38% per T or more than non-organic products (Ernst, 2012). Currently in New York and Pennsylvania, farmers who grow organic corn can create a net profit from \$1,200 to \$1,700 per acre, causing a large increase in organic sweet corn production along the east coast of the US (English, 2015).

The import prices of US and Germany are shown in figure 12. The German import price has increased from \$1.28 to \$1.43/kg from 2010 to 2014. The average German import price during this period was \$1.38/kg. Comparing the import prices of Germany and the US, it can be seen that the US import price is more stable during this period with average price of \$0.90/kg.



Source: Comtrade database

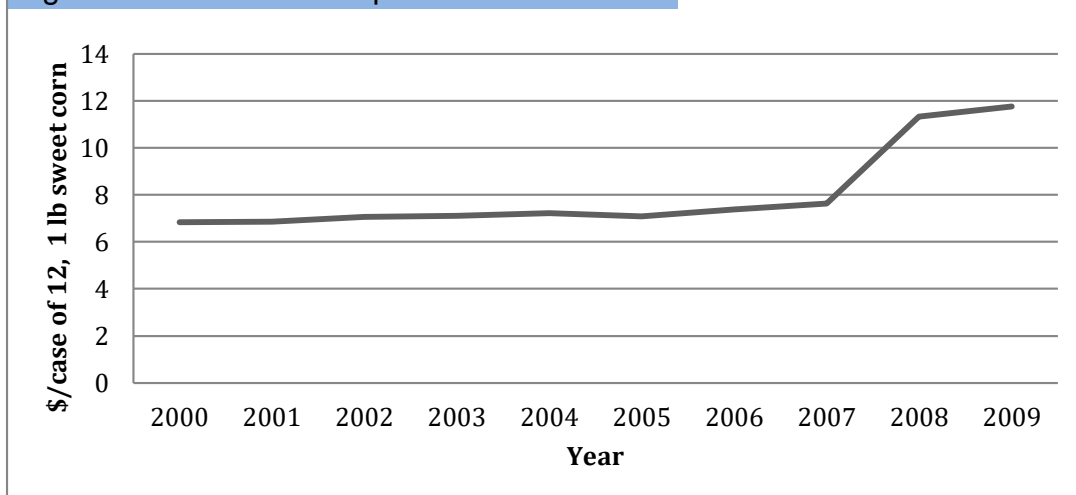
The FOB price of sweet corn in the US and Germany is between \$900-\$1200 per MT and this price refers to fresh organic sweet corn. For organic canned corn, for exports from China to the US and Germany, the FOB price is between \$1-\$20 per carton according to the global trade base Alibaba. The prices differ based on can sizes, quality and the number of cans included in one carton (Alibaba, 2015).

Prices at Wholesale Level

At METRO, one of the largest wholesale shops in Germany, the average wholesale prices for regular canned corn is 2.10€/kg. However, according to our industry research, METRO does not sell organic canned corn.

For non-organic canned corn, wholesale prices in the US have continued to increase since 2000. In 2000, the season average \$6.83 per case of 12, 1-lb. canned corn. In 2009, that price increased to \$11.76 per case of 12, 1-lb. canned corn (USDA, 2010a). Currently in Costco, one of the largest wholesale stores in the US, organic canned corn costs \$1.178/lb. (Practical Stewardship, 2015). The cost of organic canned corn at the wholesale level is expected to keep increasing, as the price of regular canned corn increases and as more customers are choosing an organic option. Figure 13 shows that the US wholesale price for canned corn has increased significantly from 2007 to 2009.

Figure 13: US wholesale price of Canned corn



Source: USDA, 2010

Prices at Retail Level

In Germany, the price of organic canned corn is higher than the price of regular canned corn. The prices for organic canned corn are also higher than in the US. The prices for canned corn depend on several factors:

- Quantity and quality
- Demand
- Category of the store (supermarkets and organic shops)
- Brand

The average price of organic canned corn from our primary research of German markets in October 2015 was 5.6€/kg. In Rewe Supermarket, Rewe Bio (150g) organic canned corn is available at 0.99€. At Alnatura Organic shop, the organic

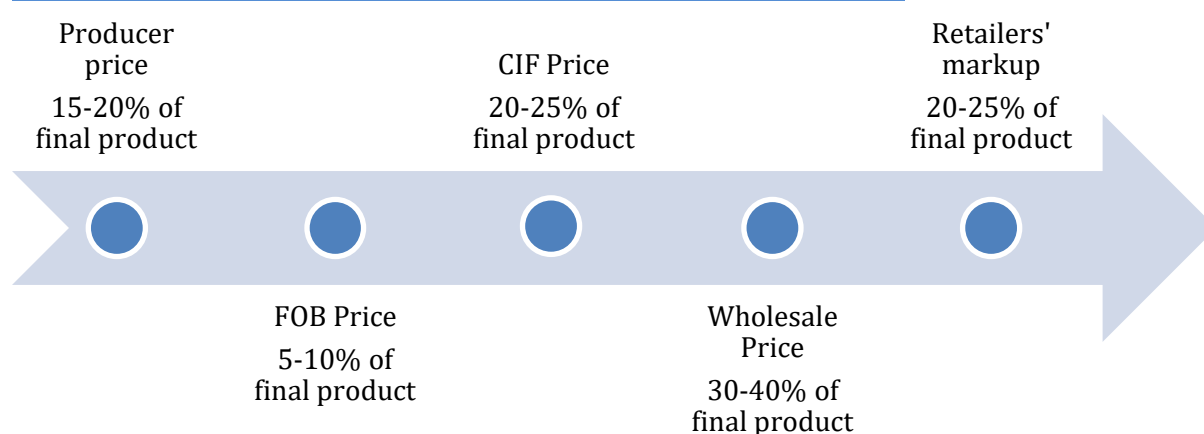
canned corn Rapunzel (160g) is available at 1.29€ (For detailed information for German retail price see Annex 5).

In the US, at Walmart, the retail price for organic canned corn was \$1.123/lb in November 2015 (Walmart, n.d.). At Meijer Supermarkets, the retail price in December 2015 for their store brand True Goodness Organic Whole Kernel Canned Corn was \$1.418/lb. (Meijer, n.d.). These prices are expected to increase in the future as organic demand increases.

Value chain

The process for the value chain starts with the farmers of the exporting country. These farmers are mostly located in the US, Thailand, Canada, Hungary, and France (i.e. sweet corn preserved). The main farmers of organic canned corn are located in countries where farming is less industrial, such as Romania and Turkey. The product is then preserved by a canning company and exported to countries where dry crop conditions are not met easily, such as Germany. From there, the organic canned corn is sold to wholesalers on pallets. The wholesalers then sell the organic canned corn to the retail stores (Ceres, 2013).

Figure 14: Value chain for organic corn



Source: Industry Research

The value chain is based on average prices, as in many cases there is no any distinction between organic and regular corn, and imported, exported and producing data.

The prices in the US and German markets are different. German prices for both organic and non-organic canned corn in every stage is higher than US prices. One of the reasons for this price difference is that US has high production level of sweet corn, while Germany doesn't.

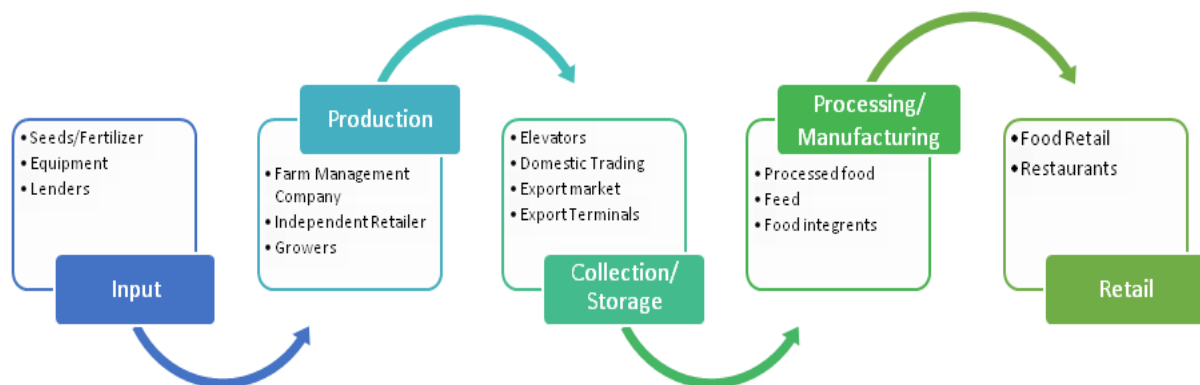
The outlook for the prices of organic canned corn looks promising. From 2013 to 2014, the world prices of organic canned corn increased by 5.3%. This number is expected to increase in the future due to a higher demand caused by healthier eating styles and convenience factors. The US and Germany are still expected to be the largest consumers of canned corn in the future, which should help exporters create high revenues in these regions.

6. Distribution channels

In the US, vast majorities of organic commodities pass through the hands of at least one handler on the way from the farmer to the consumer. This applies also for organic canned corn. Certified handlers are allowed to handle this product according to National Organic Standards. Those handlers perform numerous functions along the supply chain, including processing and packing, shipping, brokering and distributing. By using contracts, handlers develop and maintain strong business relationships with their suppliers (USDA, 2015b).

After the farming process is finished, the corn is removed from the cobs, processed and then placed into a can following standards set by the FDA. The next step is the delivery of the product on pallets to wholesalers who sell it to retailers. The retail section includes supermarkets and specialized organic stores. The retailer stocks the product and finally sells it to the end user (Ceres, 2013).

Figure 15: Supply Chain & Value Chain



The primary mechanism of transporting canned corn overseas is by ship. Upon arrival at the port of entry, the means of transport is truck or train. Facility requirements recommended for canned refer to the storing temperature. Temperatures should be between 50 and 70 degree Fahrenheit (Rasmussen, 2014).

In general, the production of canned products is highly dependent on the supply of raw materials. Harvest failures regarding organic canned corn occur due to weather conditions during the growing season of the crop. This can have an influence on the supply and demand equation. Moreover, the processing industry has to deal with competition of the fresh products market (CBI, 2009).

For both, the US and Germany the distribution channels for organic canned corn are as follows

- Wholesaler/Importer
- Retail, like conventional supermarkets
- Specialized organic stores

In the US, organic canned corn is produced and consumed within the country, while Germany depends on imports and the reliability of suppliers. Since the demand for organic canned corn is increasing, the supply needs to be expanded as well. Farmers in the US, however, are reluctant to switch from conventional to organic due to a possible financial risk. In the future, handlers will help farmers switch by simplifying the organic certification process, providing technical assistance and assuring a market for the output.

In the US, handlers face more competition than in Germany because of numerous domestic business participants in the corn industry. Although facing this competition in the US, the increasing demand for organic food results in an increase in conventional stores such as Walmart and Meijer. In Germany, the increasing demand also leads to a significant increase of large organic retail stores between 2013 and 2014, and is expected to continue to grow (Bund Ökologische Lebensmittelwirtschaft, 2014).

Due to an increase in demand, both the US and Germany have a promising trend for development of organic food distribution channels.

7. Commercial practice

Germany

Commercial practices in Germany are fairly the same as in the US (see the following paragraphs). There are several companies that import canned corn into Germany. Some of them specialize only in importing corn and derivative products, while others deal with agricultural products in general. When exporting canned corn to Germany, conditions and terms of payment are based on negotiations. These negotiations vary depending on the agreements made between companies and their respective customers.

One of the biggest German wholesalers for organic products is Dennree. This company has its own shops throughout the country as well as contracts with organic farmers (Dennree, 2015).

The United States

The ordering procedure of organic canned corn in the US is similar to that of other consumer goods. According to a USDA public affairs specialist, ordering procedures and payment terms differ between the agreements of private companies and their customers (S. Jones-Ellard, personal communication, November 4, 2015). A normal import order begins with ordering a quotation and a sample which can be done via email, phone, or fax. Canned corn samples are always delivered via mail. The response is usually with a pro forma invoice, which can be used by the importer to obtain a letter of credit from the bank. Once obtained, the importer sends a purchase order along with a letter of credit to the supplier and the delivery process begins (Welby & McGregor, 2004).

The first step in the transport process is done by “handlers” who transport organic vegetables from farms to the exporters using trucks or trains. After that, the canning process occurs.

When importing canned corn into the US, the goods are transported overseas via an ocean carrier, which is booked by freight forwarder. Upon arrival, the customs broker issues a delivery order that authorizes the inland carrier to pick up the cargo at the specified port and deliver it to the importer via a truck, rail or barge line (Welby & McGregor, 2004).

Some typical procedures when exporting and importing organic canned corn include issuing financial documents, arranging with freight forwarders and inland carriers,

booking cargo space, dispatching containers with goods, and customs inspection (Welby & McGregor, 2004).

The methods and terms of payment vary and are normally negotiable. Full or partial payments may be made either before or after the delivery of goods depending on the agreement. In normal cases, the maximum time for a payment to be made is 30 days after the receipt and acceptance of the goods (Regulations, 2015).

Comparing the commercial practices of both markets, they are similar in the sense that the ordering processes and payment terms of organic canned corn vary based on the agreements established between the private companies and their customers. No significant changes are expected in this regard.

8. Packaging and labeling

Packaging

Food cans allow long-term food quality and are one of the safest, most economical and environmentally friendly packaging forms (Can Manufacturers Institute, n.d.). For the protection of the inside, the right coating of the can plays an important role (ILSI Europe Report Series, 2007).

In April 2009, Germany reversed its standardized sizes due to a EU regulation (Lebensmitteldose, n.d.). The EU regulation 2007/45/EG contains arbitrary packaging sizes and prohibits national packaging rules (EUR-Lex, 2007). In regulation 1935/2004 the EU implies that materials which have any contact with foodstuff must have an internal behavior, i.e. the material must not deliver any substances in the foodstuff (BLL, n.d.). Germany is one of the countries that use the Green Dot System. The German Packaging and Waste Avoidance Law requires importers of consumer products to create a deal with one of the German licensed recycling companies on creating recyclable packaging materials for the product. The Green Dot is then printed on all products retailed in Germany and ensures that the packaging material will be recycled in a controlled system (USDA, 2009).

The FDA controls the food packaging regulations for the US market. The CFR Title 21 contains the definitions in part 155.3 and the requirements for canned corn in part 155.130 (FDA, 2015a). Part 175 regulates the indirect food additives including adhesives and components of the coating (FDA, 2015b). The US has no packaging size regulation, but the common sizes for canned corn are 8.75 oz., 15.25 oz. and 29 oz. (Can Manufacturers Institute, n.d.). The Agriculture Marketing Service of the USDA supervises the National Organic Program. This program sets a definition of organic and creates a certification, which shows that the production conditions meet the definition (FDA, 2015c).

In comparison, both markets display similar basic regulations for the packaging of organic canned corn. Germany has higher recycling requirements with the Green Dot System that could initially be a barrier for exports to Germany. The can industry made great improvements in the past and is still working on innovations to get the best out of one of the most attractive packaging forms of the future (DVI, 2014). At the moment no information indicates that there will be new packaging regulations in either market in the near future.

Labeling

To protect the consumers and enhance the competition in the organic market, the EU has a strict requirement and check system for the organic farming. Goods that meet the regulation of the EU requirements can have the organic label and logo (Ecolabel index, n.d.).

The organic product label indicates that the product has been grown within sustainable cultivation systems. As long as at least 95% of their agricultural ingredients are organic, the food can be marked "Organic". Products containing less than 95% organic ingredients, the term "Organic" is only used to indicate individual organic ingredients. In addition, the total percentage of organic ingredients must be indicated, when a reference is made to the organic production method in the ingredients list.

For Germany, per FIC (EU) Regulation 1169/2011, the label should have a minimum font size of 1.2mm height to print with easily understood language by the consumer of the Member States where the food is marketed (Brans, 2014).

Organic plant production that within the scope of Council Regulation No. 834/2007(EU):

- May use terms such as "eco" and "bio" to describe an organic product, its ingredients, or raw materials.
- Labeling with a reference to the control body that certifies the product concerned.
- Mandatory EU logo, as an indication of the provenance of raw materials used in the product. This indication must be shown in the same field of vision as the Community logo. (EUR-Lex, 2008)

The label should have:

- The producer, processor or distributor who last handled the item.
- Name or code number of the national certification authority.
- Name or code number of the control authority or body in the EU that checked the operator. (European Commission, 2014b)

In the US, for nonretail containers used to ship or store processed organic product need to display:

- Name and contact information of the certifying agent which certified the handler of the finished product
- "Organic" term
- Any instructions that maintain integrity of the product
- USDA seal and the appropriate certifying agent seal
- Production lot number (USDA, 2010b)

Products that are certified and labeled in accordance with the requirement of the National Organic Program may be shipped to international markets without marking "for export only". US products that are certified to a certain EU organic standard should be marked accordingly.

The US-EU reached an agreement on the organic products certification from June 1, 2012. In this agreement the US and EU recognized their rules and control system as similar so that the certificate and labels are regarded as equal. Under this agreement, when the exporters want to use the EU organic logo, exporters must meet all the EU labeling requirements (USDA, 2015c).

The requirement of labeling between Germany and the USA is similar. With this agreement, administrative problems are reduced and there are better trade opportunities with reduced fees for separate certifications (USDA, 2015c).

Furthermore, this agreement was just renewed in June 2015 with no time limitation, which adds to the positive outlook for both markets.

9. Sales promotion

Trade fairs and exhibitions

Trade fairs and exhibitions provide interesting business opportunities for exporters. The following list includes the most important trade fairs for companies dealing with organic canned corn:

Germany

Anuga
KoelnMesse GmbH
Messeplatz 1
50679 Cologne
Phone: +49 221 8212240
Fax: +49 221 8212574
Email: anuga@koelnmesse.de
Web: www.anuga.com

BIOFACH
Exhibition Centre Nuremberg
90471 Nuremberg
Phone: + 49 911 86060
Fax: +49 911 86068228
Email: info@nuernbergmesse.com
Web: www.biofach.de/en/

BIOOST
Messe Berlin
Jafféstrasse 2
14055 Berlin
Phone: +49 511 87654820
Fax: + 49 511 87654829
Email: ost@biomessen.info
Web: www.bioost.info/

US

BIOFACH AMERICA - ALL THINGS ORGANIC
Baltimore Convention Center
One West Pratt Street
Baltimore, MD 21201
Phone: +1 646 8780140
Fax: +1 646 8780240
Email enquiries: www.biofach-america.com/en/contact/exhibitors/

Co-organized by NürnbergMesse GmbH and Penton Media, Inc.

International representatives are available under www.biofach-america.com/en/contact/representatives/

Natural Products Expo East
Baltimore Convention Center
One West Pratt Street
Baltimore, MD 21201
Phone: +1 866 458 4935

www.expoeast.com

Regional and International representatives are available under
www.expoeast.com/ee16/public/Content.aspx?ID=1062634&sortMenu=112006&MainMenuID=1062612

Natural Products Expo West
Anaheim Convention Center
800 West Katella Avenue
Anaheim, CA 92802
Phone: +1 866 458 4935

www.expowest.com

Regional and International representatives are available under
<http://www.expowest.com/ew16/public/Content.aspx?ID=1061666&sortMenu=104002&MainMenuID=1061664>

Sustainable Food Summit
Hotel Nikko San Francisco
2222 Mason Street
San Francisco, CA 94102
Phone: +1 415 254 1116

<http://www.sustainablefoodssummit.com>

Email: info@sustainablefoodssummit.com

Trade magazines

ZEITSCHRIFT MAIS is a German magazine that publishes a monthly edition, both as online and print version. It deals with the following topics:

- Crop protection
- Production engineering
- Research
- Sustainable economy

Contact information:
Deutsches Maiskomitee e.V.
Brühler Straße 9

53119 Bonn
Tel.: + 49 228 92 65 80
Fax: + 49 228 92 65 820
Email: dmk@maiskomitee.de
Web: <http://www.maiskomitee.de/>

Acres USA - monthly print magazine of US organic and sustainable farming
Web: <http://www.acresusa.com/>

Biowelt - German print and digital business magazine covering the entire organic market
Web: <http://www.biowelt-online.de/>

Associations

Deutsches Maiskomitee e.V.
The Deutsche Maiskomitee is a German corn growers association based in Bonn. Within the association there are different expert committees dealing with special areas such as communication, sustainability and production engineering. Furthermore, there are working groups supporting the committees. A membership allows partners to attend the conferences and participate in any of the working groups. The members are also provided with newsletters about the latest changes and results.

Contact information:
Deutsches Maiskomitee e.V.
Brühler Straße 9
53119 Bonn
Tel.: + 49 228 92 65 80
Fax: + 49 228 92 65 820
Email: dmk@maiskomitee.de
Web: <http://www.maiskomitee.de/>

Organic Trade Association
The Organic Trade Association looks to give its members a unifying voice to promote and protect the organic sector. It has over 8,500 businesses registered as members including the whole value chain from farmer to retailer. The Organic Trade Association offers its members valuable resources and connections in order to achieve its goal of excellence in agriculture and commerce.

Contact information:
Organic Trade Association
444 N. Capitol St. NW, Suite 445A

Washington D.C., 20001
Phone: +1 202 403 8520

National Corn Growers Association

The National Corn Growers Association's mission is to create and increase opportunities for corn growers. They represent around 40,000 corn growers around the US and have more than 300,000 growers contributing through corn checkoff programs in their states.

Contact Information:

National Corn Growers Association
632 Cepi Drive
Chesterfield, MO 63005
Phone: +1 636 733 9004
Fax: +1 636 733 9005
E-Mail: corninfo@ncga.com

Comparing the situation in Germany and the US, it is fairly similar. For both countries, there are plenty of advertising opportunities, especially through trade fairs and magazines. These are becoming more international and are growing in terms of quantity for both exhibitors as well as visitors.

As an outlook to the future it can be said that in both countries there will be an increase of the amount/size of trade fairs, exhibitions and visitors dealing with organic products. This will lead to an increased demand for magazines, publications and journals covering this topic. Furthermore, the increased digitalization of magazines will make information more accessible.

10. Market prospects

Germany

The overall outlook for the German market is positive. The main factors are the German dependency on imports in a combination with a rising demand for organic canned corn.

Germany is highly dependent on organic canned corn imports due to its high consumption and lack of production. It accounts for around 10% of global organic canned corn imports with an annual growth rate of 9% between 2010 and 2014. This growth rate is expected to continue in the future although the yearly percentage rate may drop a little because the base amount is growing each year.

The German organic market increased its revenue by 8.6% in 2013 (Bund Ökologische Lebensmittelwirtschaft, 2014). This trend is expected to continue, especially for organic canned corn. Because the consumer preferences shift more towards organic products, more consumers will change from non-organic to organic corn resulting in a favorable outlook for organic canned corn imports.

The demand increase for organic products also resulted in a significant increase of large organic retail stores. This is a promising trend for importers because the distribution channels are increasing and it makes it easier to export large quantities of organic canned corn to Germany. Another effect of the increased demand is a steady price increase. Prices are higher than in the US and are rising/falling in accordance.

For the market access, the imposed tariffs create a minor barrier to enter the German market, but are not expected to rise significantly. However, the EU regulations tend to become stricter which may raise the entry barrier.

In conclusion, the market outlook for organic canned corn in Germany is very promising. Germany is relying heavily on sweet corn imports while having positive consumption and organic market trends.

The United States

The overall outlook for the US market is positive. The US shows increasing consumption trends while production stays constant. This creates a need for additional US imports. Furthermore, the price for organic canned corn is expected to rise even more in the future (5.3 % from 2013 to 2015) which increases the profit potential for possible foreign exporters entering the US market.

Another factor appealing to exporters is the current US law, which requires American farms to be free of GMO crops and synthetic chemicals for three years before the crop can be labeled as certified organic. This is causing many US farmers to resist changing their crop from GMO to organic. Due to this, the US is now turning more to exporting countries where farming is less industrial to provide their organic crops. This can provide a competitive advantage for foreign exporters entering the US market.

The current US trends in canned corn include a high demand for health and convenience, causing an increase in the demand of organic canned corn. In 2013, the US organic market had revenues of \$35.1 billion, an increase of 11.5% from the previous year (Stamper, 2014). These numbers are projected to keep rising as the shift in consumer preferences are leaning more towards organic foods.

The demand increase for organic products in the US has also resulted in increases of organic products in mainstream stores, such as Wal-Mart and Costco (Stamper, 2014). This contributes to the convenience factor that many Americans are looking for when buying their food. This trend should continue in the future and organic canned corn should appear in more stores nationwide.





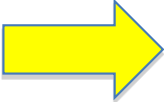

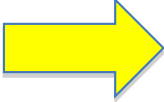



For the market access in the US, the imposed tariffs can create a barrier to enter for countries with an MFN status. Although there may be barriers to enter, they are much lower than in other countries they have stricter regulations.

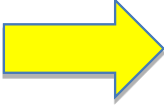
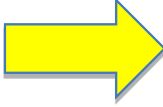
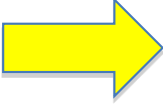
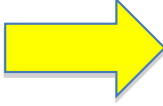
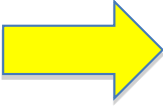

There are many new trends arising in technology sector for organic products. One of the new developments is an agricultural drone that can help farmers gain better information regarding fertilizing, irrigation, and pest control. They have also developed a tool called an Arduino microcontroller, which controls the water pumps, soil pH, and notifies the farmer when standards are too low or too high via social media. Another development is the use of biotech and synthetic biology to create biofuels for farming equipment and generators (Berletic, 2014). All these technologies can help the farmers to produce organic canned corn more efficiently.

All in all, the market outlook for organic canned corn in the US is promising. The US has the largest consumption of canned corn in the world. In addition, the US demand for organic products is on the rise, as health and convenience is an uprising trend in the US.

In comparison, the outlook for both markets is very positive. The US and Germany show a good market growth going along with an improved product availability. Furthermore, consumers in both markets are continuously changing from non-organic to organic products. The US has lower barriers to enter the market because of lower tariffs and less strict regulations. Yet, Germany is slightly more attractive for

organic canned corn exporters. This is due to Germany's dependence on imports, which is not expected to change in the future. With the latest technological improvements, it could become more profitable for US farmers to change to growing organic canned corn. If the government creates additional incentives for the three-year transition period of changing from GMO to organic, more US farmers would change to producing organic canned corn. In this case, the need for imports would be considerably lower in the US.

Table 10: Market Prospects Synopsis		
Germany	USA	Explanation
		2. Production, Trade, Consumption: The situation is expected to become increasingly attractive in both markets due to the continuously growing consumption levels in both countries, which will lead to higher foreign trade and production in the future.
		3. Market Characteristics: Both markets are expected to become increasingly attractive for exporters since the demand trend for organic products as well as convenient products is expected to continue increasing in the future.
		4. Market Access: The situation for exporters is expected to remain unchanged in Germany due to the relatively high entry barriers. The US market is expected to become increasingly attractive due to low custom duties and low entry barriers, which will continue to make the US an attractive market for exporters.
		5. Prices: The situation is predicted to be unchanged in Germany due to the stability of import prices. It is expected to become increasingly attractive in the US for exporters. Prices are expected to continue increasing, which will lead to increased production and investment.
		6. Distribution: The situations in both Germany and the US are expected to become increasingly attractive for potential exporters. This is because the increase in demand for organic products will ultimately lead to an increase in the distribution channels.

		7. Commercial Practices: <p>The situation is expected to remain unchanged in both Germany and the US. Since commercial practices are privately established between companies and their customers, no changes are expected in the future.</p>
		8. Packaging and Labeling: <p>No changes are expected regarding the packaging and labeling regulations in both markets. Therefore, the situation is expected to stay unchanged in Germany and the US.</p>
		9. Sales Promotions: <p>The situation is anticipated to remain unchanged in Germany and the US. Trade magazines and trade exhibitions are expected to remain the main sources of promotion.</p>

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Annex

Annex 1: EU Tariffs

Chapter 4: EU Tariffs for HS 200580

Table 8: European Union Tariffs for HS 200580

Duty type	Description	Rate	Specific Duty	Binding: Bound Nature
2	MFN applied duty rates	-	5.1 % + 9.4 EUR/100 kg/net eda	Compound duty
13	EU/Andorra agreement	0.00	-	Ad valorem duty
14	EU/Albania agreement	0.00	-	Ad valorem duty
15	EU/Bosnia and Herzegovina agreement	0.00	-	Ad valorem duty
16	EU/Switzerland agreement	0.00	-	Ad valorem duty
18	EU/Algeria agreement	-	9.4 EUR/100 kg/net eda	Specific duty
19	EU/Faroe Islands agreement	-	9.4 EUR/100 kg/net eda	Specific duty
1B	EU/Israel agreement	-	9.4 EUR/100 kg/net eda	Specific duty
1D	EU/Iceland agreement	-	7.58 EUR/100 kg/net eda	Specific duty
1E	EU/Korea agreement	0.00	-	Ad valorem duty
1F	EU/Jordan agreement	0.00	-	Ad valorem duty
1G	EU/Lebanon agreement	-	9.4 EUR/100 kg/net eda	Specific duty
1H	EU/Liechtenstein agreement	0.00	-	Ad valorem duty
1I	EU/Morocco agreement	0.00	-	Ad valorem duty
1J	EU/Montenegro agreement	0.00	-	Ad valorem duty
1K	EU/Former Yugoslav Republic of Macedonia agreement	0.00	-	Ad valorem duty
1M	EU/Norway agreement	-	7.58 EUR/100 kg/net eda	Specific duty
1O	EU/Occupied Palestinian Territory agreement	0.00	-	Ad valorem duty
1P	EU/Peru agreement	-	9.4 EUR/100 kg/net eda	Specific duty
1Q	EU/Tunisia agreement	-	9.4 EUR/100 kg/net eda	Specific duty

1R	EU/Turkey agreement	-	9.4 EUR/100 kg/net eda	Specific duty
1S	EU/Egypt agreement	0.00	-	Ad valorem duty
1T	EU/San Marino	0.00	-	Ad valorem duty
1U	EU/Ceuta-Melilla agreement	0.00	-	Ad valorem duty
1V	EU/Serbia agreement	0.00	-	Ad valorem duty
1X	EU/Papua New Guinea agreement	0.00	-	Ad valorem duty
1Y	EU/Syrian Arab Republic agreement	-	9.4 EUR/100 kg/net eda	Specific duty
1Z	EU/Colombia agreement	-	9.4 EUR/100 kg/net eda	Specific duty
20	European Economic Area Agreement	-	7.58 EUR/100 kg/net eda	Specific duty
20	European Economic Area Agreement Liechtenstein	-	5.1 % + 9.4 EUR/100 kg/net eda	Compound duty
22	EU-Switzerland agreement: re-imported goods	0.00	-	Ad valorem duty
23	Overseas Countries & Territories Agreement	0.00	-	Ad valorem duty
25	EU-Eastern and Southern Africa States agreement	0.00	-	Ad valorem duty
26	Economic Partnership Agreements	0.00	-	Ad valorem duty
27	Economic Partnership Agreements CARIFORUM	0.00	-	Ad valorem duty
27	Economic Partnership Agreements CARIFORUM Haiti	-	5.1 % + 9.4 EUR/100 kg/net eda	Compound duty
28	Central America Agreement	-	9.4 EUR/100 kg/net eda	Specific duty
3A	EU/Cameroon agreement	0.00	-	Ad valorem duty
3B	EU/Ecuador agreement	-	9.4 EUR/100 kg/net eda	Specific duty
3C	EU/Fiji agreement	0.00	-	Ad valorem duty
3D	EU/Georgia agreement	0.00	-	Ad valorem duty
3F	EU/Kosovo agreement	0.00	-	Ad valorem duty
3G	EU/Republic of Moldova agreement	0.00	-	Ad valorem duty
42	Generalized System of Preferences (GSP+) plus scheme	-	9.4 EUR/100 kg/net eda	Specific duty
50	Least Developed Countries (LDC) duties	0.00	-	Ad valorem duty
Source: WTO – Tariff Analysis Online				

Annex 2: US Tariffs

Chapter 4: US Tariffs for HS 200580

Table 9: US Tariffs for HS 200580				
Duty type	Description	Rate	Specific Duty	Binding: Bound Nature
2	MFN applied duty rates	5.60 %	-	Ad valorem duty
10	Free-trade area duty rates for Canada under the NAFTA	0.00	-	Ad valorem duty
11	Free-trade area duty rates for Mexico under the NAFTA	0.00	-	Ad valorem duty
12	Free-trade agreement duty rate for Israel	0.00	-	Ad valorem duty
13	Free-trade agreement duty rate for Bahrain	0.00	-	Ad valorem duty
15	Free-trade agreement duty rate for Jordan	0.00	-	Ad valorem duty
16	Free-trade agreement duty rate for Singapore	0.00	-	Ad valorem duty
17	Free-trade agreement duty rate for Chile	0.00	-	Ad valorem duty
18	Free-trade agreement duty rate for Australia	0.00	-	Ad valorem duty
19	Free-trade agreement duty rate for Morocco	0.00	-	Ad valorem duty
1A	Free Trade Area duty rate for Dominican Rep. and Central America (DR-CAFTA)	0.00	-	Ad valorem duty
1B	Free-trade agreement duty rate for Oman	0.00	-	Ad valorem duty
1C	Free-trade agreement duty rate for Peru	0.00	-	Ad valorem duty
1D	Free-trade agreement duty rate for Korea	1.10 %	-	Ad valorem duty
1E	Free-trade agreement duty rate for Colombia	0.00	-	Ad valorem duty
1F	Free-trade agreement duty rate for Panama	0.00	-	Ad valorem duty
30	Preferential duty rate for the Caribbean Basin Economic Recovery Act (CBERA)	0.00	-	Ad valorem duty
40	Generalized System of Preferences (GSP) scheme	0.00	-	Ad valorem duty
80	General duty	35.00 %	-	Ad valorem duty
Source: WTO - Tariff Analysis Online				

Annex 3: Retail price for organic canned corn in German supermarkets and organic shops

Chapter 5: Retail price for organic canned corn in German supermarkets and organic shops

Annex 5: Retail price for organic canned corn in German supermarkets and organic shops								
Organic	Canned corn Brands at REWE supermarket			Canned Corn Brands at Organic shops, Basic Bio, Temma, Alnatura				
Regular								
Product/Brand Germany	REWE	Bonduelle	Ja	Demeter De Rit	Basic-Vagen	Demeter	Alnatura	Rapunzel
150g	0.99	0.89						
160g								1.29
180g				1.69				
300g	0.85	1.49/1.09€						
330g			0.49		1.49			
340g				1.99		1.69	1.25	1.99
600g		2.15						
Source: Research of German retail market								